

Applicants: Allan Green et al.
Serial No.: 09/981,124
Filed : October 17, 2001
Page 7 of 13 of September 9, 2008 Amendment

REMARKS

Claims 41-43 and 50-67 were pending in the subject application. By this Amendment, applicants have hereinabove amended claims 55, 59 and 67.

Support for the amendments to claims 55, 59 and 67 may be found, inter alia, on page 5, line 35.

Applicants maintain that the amendments to the claims raise no issue of new matter. Accordingly, applicants respectfully request entry of this Amendment.

Claim Objections

Claims 55, 59, 67

On page 2 of the July 9, 2008 Final Office Action, the Examiner objected claims 55, 59 and 67 in addition to claims 56 and 60 dependent thereon under 37 C.F.R. §1.75(c) as improper dependent form for failing to further limit the subject matter of a previous claim. Specifically, the Examiner asserted that the claims fail to further limit the claims from which they depend for allegedly reciting that the nucleic acid is obtained from a plant capable of producing epoxy fatty acids prior to the process of producing the transgenic plant.

Applicants' Response

In response, in order to expedite prosecution, and without conceding the correctness of the Examiner's position, applicants have amended claim 55 and 59 to clarify the invention.

Claim 67

On page 2 of the July 9, 2008 Final Office Action, the Examiner objected claim 67 over the recitation "the cell of tissue."

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Applicants' Response

In response, in order to expedite prosecution, and without conceding the correctness of the Examiner's position, applicants have amended claim 67 to recite "...the cell or tissue..."

Rejection under 35 U.S.C. §112, second paragraph

On page 3 of the July 9, 2008 Final Office Action, the Examiner rejected claims 55, 56, 60 and 67 under 35 U.S.C. §112, second paragraph as allegedly indefinite for failing to particularly point out and distinctly claim the subject matter which applicants regard as the invention. The Examiner asserted that claims 55, 59, and 67, as well as claims 56 and 60 dependent thereon, are indefinite for reciting "possessing the genetic capacity to synthesize epoxy fatty acids," and stated that it is unclear what is meant by "genetic capacity."

Applicants' Response

In response, applicants respectfully traverse the Examiner's rejection. However, in order to expedite prosecution and without conceding the correctness of the Examiner's position, applicants have hereinabove amended claims 55 and 59 to further limit the claims from which they depend by specifying that the nucleic acid is obtained from, "...a plant that synthesizes epoxy fatty acids."

Accordingly, the dependent claims are definite, and the rejection should be withdrawn.

Rejection under 35 U.S.C. §112, first paragraph - Written Description

Claims 55, 59, 60 and 67

On page 4 of the July 9, 2008 Final Office Action, the Examiner rejected claims 55, 59, 60 and 67 under 35 U.S.C. §112, first

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paragraph as allegedly failing to comply with written description requirement. The Examiner alleged that the claims contain subject matter not described in the specification as to reasonably convey the inventor had possession of the claimed invention.

Applicants' Response

The Examiner did not explain the basis of the rejection, and the rejection is therefore moot.

Rejection under 35 U.S.C. §112, first paragraph - Enablement

In section 7 of the July 9, 2008 Final Office Action, the Examiner rejected claims 41-43 and 50-67 under 35 U.S.C. §112, first paragraph, alleging that while enabling for a transgenic Arabidopsis and flax plants transformed with SEQ ID: 1 or SEQ 2, the specification does not reasonably provide enablement for any transgenic plant species transformed with a nucleic acid encoding a polypeptide having the recited histidine rich regions and having at least 60% identity to SEQ ID NO:2.

Applicants' Response

In response, applicants respectfully request the Examiner to examine the pending process claims.

One skilled in the art was readily enabled to "make and use" the claimed invention as of applicants' filing date. The claimed invention is a process for providing a transgenic plant by transforming a plant cell with a specific nucleic acid. Certainly by applicants' filing date one skilled in the art of plant genetics was readily able to transform plant cells with a nucleic acid. Thus, one skilled in the art was readily able to practice the claimed process, i.e. "make" the claimed invention. No evidence of record indicates otherwise.

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Indeed the Examiner on page 5 of the July 9, 2008 Final Office Action does not question whether one can produce a transgenic plant, but rather questions "how one would use the method of producing a plant by transforming said plant with a nucleic acid sequence encoding a polypeptide with undetermined activity." (Emphasis added)

The Examiner's concerns are addressed by the specification which teaches how to "use" the claimed process. For example, page 62 of the specification teaches that the process can be used to produce transgenic plants which can be "analyzed for fatty acid composition" i.e. used in an assay to determine epoxygenase activity in plants transformed with the recited nucleic acid. "Standard techniques" are used, such as gas chromatography, to analyze the fatty acid composition relative to other plants. Thus, the claimed process can be used to confirm the prediction of the specification that the nucleic acid recited in the claims can produce epoxy fatty acids that would not otherwise be produced in a non-transformed plant. Clearly such is a "use" of the claimed process. Moreover, such "use" was fully enabled as of applicants' filing date.

In light of the disclosed examples and the established nature of generating a transgenic plant by applicants' filing date, applicants maintain that it is untenable that one skill in the art is not enabled to practice the invention as claimed and respectfully request the Examiner to reconsider and withdraw this rejection.

Rejection under 35 U.S.C. §102(e)

On page 5 of the July 7, 2008 Final Office Action, the Examiner rejected claims 41, 42, 57, 58, 59, 61 and 62 as anticipated by DeBonte et al. The Examiner alleged that the claims are not

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limited to using a nucleic acid that encodes a polypeptide wherein the peptide is at least 60% identical to "the sequence of amino acids set forth in SEQ ID NO:2."

Applicants' Response

In response, applicants respectfully traverse the Examiner's rejection and admit to some confusion. Pending claims 41 and 57 recite "wherein the polypeptide comprises a sequence of amino acids at least 60% identical to the sequence of amino acids set forth in SEQ ID NO: 2." As written, pending claims 41 and 57 require at least 60% identity to the sequence of amino acids set forth in SEQ ID NO: 2, which is clearly the full length sequence of SEQ ID NO: 2.

Applicants' March 17, 2008 Office response provided a sequence alignment between the amino acid sequences of SEQ ID No:2 of the prior art with the amino acid sequences of SEQ ID No:2 of the pending application. The BLAST sequence alignment program revealed that the amino acid sequence of the DeBonte et al. is only 56% identical to the full length amino acid sequence of SEQ ID No:2 of the pending application. Parameters, such as type of alignment program, gap length or word size, are not required for determining the sequence "identity" set forth in the claims since the percent identity must adhere to the full length of the sequence of SEQ ID NO:2, as required by the pending claims.

Accordingly, applicants maintain the sequence of SEQ ID NO:2 of DeBonte et al. exhibit a 56% identity and as such, does not meet the requirement of "at least 60% identical to the sequence of amino acids set forth in SEQ ID NO.2" of pending claims 41 and 57 as well as all of the pending claims.

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Accordingly, applicants respectfully request that the Examiner reconsider and withdraw this ground of rejection, or to clarify the record with respect to why this rejection has been maintained.

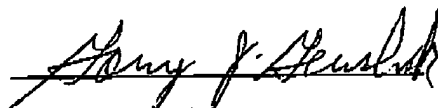
Request for Interview

Applicants' hereby request a telephone interview to better understand the Examiner's position on the stated rejections and to advance prosecution of the subject application. Applicants' undersigned attorneys invite the Examiner to telephone them at the number provided below to schedule the Interview.

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No fee is deemed necessary in connection with the filing of this Response. However, if any fee is required, authorization is hereby given to charge the amount of any such fee to Deposit Account No. 03-3125.


Respectfully submitted,



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I hereby certify that this correspondence is being transmitted by facsimile on this date to:

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 9/9/08
Lois C. Muniz, Ph.D. Deputy
September 9, 2008